

REMARKS

The Examiner is thanked for the careful examination of the application. However, in view of the foregoing amendments and the following remarks, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections.

By the foregoing amendments, claims 1-7 have been cancelled and new claims 8-17 have been added. Claims 8, 13 and 16 are independent claims.

The original claims 1-7 have been rejected under either U.S. Patent No. 5,172,774, hereinafter *Melrose*, by itself, or under a combination of *Melrose* in view of U.S. Patent No. 4,776,414, hereinafter *Badcock*. Initially, Applicants assert that *Melrose* and *Badcock* are not analogous art, and therefore cannot properly be combined under 35 U.S.C. §103(a). Furthermore, even if the Examiner takes the position that the references are analogous, there is no teaching or suggestion to combine the references in the manner suggested by the Examiner.

Furthermore, the original claims 1-7 have been cancelled and replaced by new claims 8-17.

New claim 8 defines a torque detection device for a wave gearing which includes, among other elements, that the detection segment is formed to have a circular arc shape of a grid pattern formed by portions of the resistance wire, wherein the grid pattern of the resistance wire has portions arranged at equal intervals and along a direction inclined by 45 degrees with respect to a tangential direction of the circular shape. For an example of the 45 degree inclination, the Examiner's attention is directed to Figures 14A and 14B. As recognized by the Examiner, *Melrose* does not teach or suggest a detection segment with a circular arc shape. Furthermore,

neither *Melrose*, nor *Badcock*, teach a detection segment having a circular arc shape wherein the grid pattern has portions arranged to equal intervals and along a direction inclined by 45 degrees with respect to a tangential direction of the circular arc shape. As set forth in the specification, such a construction enables the torque detection device to fit compactly on the wave gearing because the inner diameter can be increased and the outer diameter thereof can be reduced. See page 13, lines 4-7.

New claim 9 depends from claim 8 and includes one detection segment having a circular arc shape of 360 degrees. For an exemplary embodiment of claim 9, the Examiner's attention is directed to Figure 11A. Neither *Melrose* nor *Badcock* disclose a strain gage pattern having one detection segment having a circular arc shape of 360 degrees.

New claim 10 depends from claim 8 and is supported by Figure 12 of the present application.

New claim 11 depends from claim 8 and is supported by Figures 5A, 6A, and 7A.

New claim 12 depends from claim 8 and is supported by Figures 8, 9, and 10.

New independent claim 13 defines a torque detection device for a wave gearing, and is supported by Figure 13 of the original application. Among other features, claim 13 defines the grid pattern of the resistance wire having portions arranged at equal intervals and along a direction inclined by 45 degrees with respect to a tangential direction of the circular arc shape.

New claim 16 is similar to new claim 8 except that it defines the inclination of the resistance wire as being inclined with respect to a tangential direction and a radial direction.

Claims 14, 15, and 17 depend from claims 8, 13, and 16, respectively, and further defines the strain gage pattern as including a wiring pattern for connecting a plurality of the detection segments to each other so that the bridge circuit is constituted and wherein the detection segments and the wiring pattern are integrally formed.

In view of the foregoing amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections and to find new claims 8-17 to be in condition for allowance.

In the event that there are any questions concerning this Amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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